

Notice of Allowability

Application No.

10/775,261

Examiner

Barry Choobin

Applicant(s)

ALDRICH ET AL.

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/21/05.
2. ☒ The allowed claim(s) is/are 2-11,13-17,19-43 (renumbered as 1-40).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

REASON FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: in view of terminal disclaimer filed on 5/02/2005 and newly amended claims filed on 11/21/2005, claims 2-11, 13-17, 19-43 are in condition for allowance for following reasons; as to claims 2, 19, 40, the closest prior art of Nishikawa et al alone or in combination with other prior art fails to disclose the method as claimed in claims 2, 19, 40. In particular the key distinction between the closest prior art and the instant claimed invention is that the closest prior art does not rely upon loading a value related to a tentative minimum distortion between two image regions into each of a plurality of accumulating elements, in combination with other elements as recited in independent claims 2, 19, 40.

As to independent claim 13, the closest prior art of Nishikawa et al alone or in combination with other prior art fails to disclose the method as claimed in claim 13. In particular the key distinction between the closest prior art and the instant claimed invention is that the closest prior art does not rely upon an image distortion information which includes a tentative minimum of distortion measured in a block motion search, in combination with other elements as recited in independent claim 13.

As to independent claim 20, the closest prior art of Nishikawa et al alone or in combination with other prior art fails to disclose the method as claimed in claim 20. In particular the key distinction between the closest prior art and the instant claimed invention is that the closest prior art does not rely upon calculating devices, each including an accumulator element, each of the calculating devices to receive a non-zero

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initial value related to a tentative minimum distortion, each of the a plurality calculating devices to further receive distortion data for two video portions acquired by said video acquiring device and to accumulate the distortion data with the initial value using the associated accumulator element, in combination with other elements as recited in independent claim 20.

As to independent claim 25, the closest prior art of Nishikawa et al alone or in combination with other prior art fails to disclose the method as claimed in claim 25. In particular the key distinction between the closest prior art and the instant claimed invention is that the closest prior art does not rely upon calculating a differential distortion amount between the source image region and the first search image region; and accumulating the differential distortion amount with the value to produce an accumulated distortion amount; and initiating an early exit of the distortion calculation if the accumulated distortion amount has a predetermined relationship with an exit amount, in combination with other elements as recited in independent claim 25.

As to independent claim 39, the closest prior art of Nishikawa et al alone or in combination with other prior art fails to disclose the method as claimed in claim 39. In particular the key distinction between the closest prior art and the instant claimed invention is that the closest prior art does not rely upon accumulating the value with results of subsequent image distortion calculations using said accumulating element; and initiating an early exit scheme when said accumulating element reaches zero, in combination with other elements as recited in independent claim 39.

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As to independent claim 41, the closest prior art of Nishikawa et al alone or in combination with other prior art fails to disclose the method as claimed in claim 41. In particular the key distinction between the closest prior art and the instant claimed invention is that the closest prior art does not rely upon image distortion information is used to process the second part using a sum of absolute differences device with an accumulator, in combination with other elements as recited in independent claim 41.

As to independent claim 42, the closest prior art of Nishikawa et al alone or in combination with other prior art fails to disclose the method as claimed in claim 42. In particular the key distinction between the closest prior art and the instant claimed invention is that the closest prior art does not rely upon using said image distortion information to process a second part, by loading a value related to said image distortion information into a calculating element, and terminating a calculation performed by said calculating element when a current accumulated value reaches zero, in combination with other elements as recited in independent claim 42.

As to independent claim 43, the closest prior art of Nishikawa et al alone or in combination with other prior art fails to disclose the method as claimed in claim 43. In particular the key distinction between the closest prior art and the instant claimed invention is that the closest prior art does not rely upon using said image distortion information to process a second part, by loading a value related to said image distortion information into a calculating element, determining that said value has reached a predetermined amount different than said value by monitoring a sign bit of the accumulator, and terminating a calculation performed by said calculating element when

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a current accumulated value reaches the predetermined amount. in combination with other elements as recited in independent claim 43.

Accordingly, claims 2-11, 13-17, 19-43 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Choobin whose telephone number is 571-272-7447. The examiner can normally be reached on M-F 7:30 AM to 18:30.

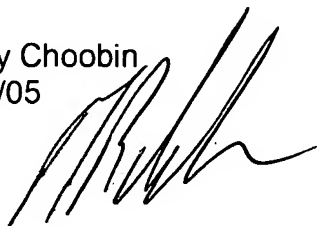
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WU JINGGE can be reached on 571-272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Barry Choobin
12/8/05

A handwritten signature in black ink, appearing to read 'Barry Choobin', written over the printed name and date.